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B.P. Drugs on Arthur B.N.J.

Upjohn

ORTHOXINE

REGISTERED TRADEMARK

*a potent sympathomimetic agent
for the prevention and treatment of*

BRONCHIAL ASTHMA

*an orally effective chemical entity
singularly specific as a*

BRONCHODILATOR

singularly free from side effects

A SIGNIFICANT DEVELOPMENT *of the* UPJOHN RESEARCH LABORATORIES

Hundreds of drugs were studied and large series of new amines synthesized in Upjohn's search for a new sympathomimetic, an orally effective bronchodilator singularly free from pressor activity, "a drug with a single track mind," an effective substitute for ephedrine.

Of all those synthesized and of all those studied—the compound *beta-(ortho-methoxyphenyl)-isopropyl-methylamine hydrochloride*—

ORTHOXINE *Hydrochloride*

was chosen. Discriminating laboratory and clinical procedures demonstrate Orthoxine to be the first sympathomimetic whose major activity is primarily bronchodilation; as such, it has many clinical advantages, particularly for

BRONCHIAL ASTHMA

A PRIMARY BRONCHODILATOR

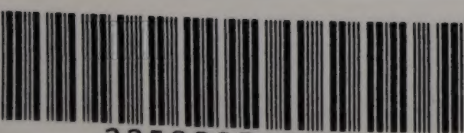
which is selectively effective in relieving broncho-constriction

being singularly free from the common vasopressor, cardiac and central nervous side effects characteristic of all sympathomimetic "pressor" amines

and so safe as to be suitable for repeated use even in the presence of hypertension

Now available to prevent and treat successfully the overwhelming bulk of bronchial asthma—the moderate and mild types.

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IN ANIMAL EXPERIMENTS

Orthoxine was found

—"more than twice as effective as ephedrine"¹ in relieving bronchoconstriction induced by pilocarpine and histamine in perfusion experiments with isolated lung preparations."

"The absence of significant pressor activity for 'Orthoxine' (EHW-286) was observed."¹

Orthoxine at twice the dose of ephedrine "did not appreciably alter the dogs' heart rate."¹

Chronic toxicity studies revealed no gross or microscopic pathology.¹

In addition to its superior ability in relieving bronchoconstriction, Orthoxine "was found to be 4 to 8 times as effective as ephedrine against . . . spasmogenic agents."¹

IN HUMAN EXPERIMENTS

Orthoxine was shown to

—increase vital capacity by as much as 1-1/10 litres during a paroxysm of spontaneous asthma.²

15 cardiac catheterization studies demonstrated that "On the whole the pressure response (to Orthoxine) is insignificant."⁴

Of 24 patients given Orthoxine *intramuscularly*, "Pulse rate was increased by more than 10 beats per minute in only one instance."²

"None of the patients was apprehensive."⁴

In acute tolerance studies under controlled conditions with progressively increased dosages, no significant cardiovascular or central nervous effects were encountered with Orthoxine in the therapeutic range.³

Of a group of chronic asthmatic cases (average 10 years duration) placed on progressively increasing dosages of Orthoxine, 31% were relieved on 100 mg. b.i.d.; 31% on 100 mg. t.i.d. and 19% on 100 mg. q.i.d.; a total of 81%.³

IN THE CLINIC

with Orthoxine

—"81% of a group of asthmatics found marked relief."³

"No increase in blood pressure was noted in those receiving Orthoxine . . . even in arteriosclerotic patients—"⁵

"Also no arrhythmias were noted as were occasionally produced by ephedrine."⁵

A series of patients, "jittery" when on ephedrine, were maintained free from this complaint, with Orthoxine.²

Orthoxine is satisfactory "to give in the old age group."⁵ No significant pressor effects even in arteriosclerosis.⁵

It may be "administered to patients with essential hypertension."²

Children five and six years old tolerated 50 mg. doses of Orthoxine without untoward effect.⁵

In a series of patients "with mild spontaneous asthma" every case reported relief to be at least as effective and in almost 31% of the cases more effective than with ephedrine.²

Orthoxine's "greatest value is as a preventive."⁶

ORTHOXINE

HYDROCHLORIDE

Dosage **IN ASTHMA**

For Prophylaxis: One Orthoxine Tablet (100 mg.) three or four times daily.

For Treatment of mild and moderate asthmatic paroxysms: one or two Orthoxine Tablets (100 mg. to 200 mg.) repeated in three or four hours if required.

IN OTHER INDICATIONS

In seasonal and perennial rhinitis, urticaria, angioneurotic oedema, and atopic dermatitis, Orthoxine Tablets are indicated in preference to ephedrine.

Pack Available in 100 mg. tablets, bottles of 25 and 100.

The rare side action: Experimental and clinical protocols, as well as the literature, have been carefully reviewed in the search for side effects.

While in such large series as 175 patients with varied allergic disorders "no increase in blood pressure was noted . . . even in the arteriosclerotic patients, in fact, an occasional depressor response was noted," one would, nonetheless, expect an occasional patient to show some blood pressure increases particularly if the recommended dosage level is exceeded. Other occasional side effects are drowsiness and light-headedness.

- Bibliography*
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